

CLAIMS

What is claimed is:

1. An actuator comprising: a rotatable gear wheel reversibly drivable by a motor, the gear wheel being operably connectable to an output element by a drive transfer device, the output element being moveable between a first and second position, in which the drive transfer device is operably disconnectable from the output lever to allow independent movement of the output lever.
2. The actuator as defined in claim 1 in which the drive transfer device moves to connect and disconnect the gear wheel and output lever at a predetermined position of the gear wheel
3. The actuator as defined in claim 1 in which the drive transfer device moves non-radially relative to the gear wheel to effect connection and disconnection of the gear wheel and output lever.
4. The actuator as defined in claim 3 in which the drive transfer device moves substantially parallel to the axis of rotation of the gear wheel to effect connection and disconnection of the gear wheel and the output lever.
5. The actuator as defined in claim 1 in which a first ramp effects the operable connection of the drive transfer device and the output element, and a second ramp effects the operable disconnection of the drive transfer device and the output element.
6. The actuator as defined in claim 5 in which when the gear wheel is driven in a reverse direction, the second ramp effects the operable connection of the drive transfer device and the output element and the first ramp effects the operable disconnection of the drive transfer device and the output element.

7. The actuator as defined in claim 1 in which the drive transfer device operates in a first resilient mode during connection and disconnection of the gear wheel and output lever.

8. The actuator as defined in claim 7 in which the drive transfer device is a pin resiliently biased in a first direction by a first resilient means, such that the first resilient means moves when the drive transfer device operates in the first resilient mode.

9. The actuator as defined in claim 1 in which the drive transfer device is operably re-connectable with the output lever following independent movement of the output lever.

10. The actuator as defined in claim 9 in which the drive transfer device operates in a second resilient mode during re-connection of the gear wheel and output lever.

11. The actuator as defined in claim 10 in which the drive transfer device is a pin resiliently biased in a first direction by a first resilient means and resiliently biased in a second direction by a second resilient means, such that the first and the second resilient means move when the drive transfer device operates in the second resilient mode.

12. The actuator as defined in claim 1 in which the stop device is mounted on a chassis of the actuator.

13. The actuator as defined in claim 1 in which the gear wheel is rotatable through at least 360°.

14. An actuator comprising: a gear wheel being rotatable relative to a chassis of the actuator and being reversibly drivable by a motor, the gear wheel being operably connectable to an output element by a drive transfer device, the output element being moveable between a first and second position, the output element acting to move a stop device between a corresponding first and second position, in which the stop device acts to stop the motor.

15. The actuator as defined in claim 14 in which the stop device acts operably between the gear wheel and chassis to stop the motor.

16. The actuator as defined in claim 14 in which the stop device includes a forwards stop which operates to stop the motor in a forwards direction and also includes a reverse stop to which operates to stop the motor in a reverse direction.

17. The actuator as defined in claim 14 in which the stop device does not limit movement of the output lever.

18. The actuator as defined in claim 14 in which the forwards stops is resiliently mounted relative to the reverse stop.

19. The actuator as defined in claim 14 in which the stop device is mounted on a chassis of the actuator.

20. The actuator as defined in claim 14 in which the gear wheel is rotatable through at least 360°.

21. An actuator comprising: a rotatable gear wheel reversibly drivable by a motor, the gear wheel being operably connectable to an output element by a drive transfer device, the output element being moveable between a first and second position, in which a stop device operates on forwards and reverse gear wheel stops to stop the motor in a forwards and reverse direction, the stop device including a forwards stop device stop resiliently moveable relative to a reverse stop device stop to allow the forwards gear wheel stop to pass the reverse stop device stop and to allow the reverse gear wheel stop to pass the forwards stop device stop.

22. The actuator as defined in claim 21 in which the forwards stop device stop and reverse stop device stop are mounted on separate arms of the stop device.

23. The actuator as defined in claim 22 in which the forwards stop device stop is resiliently moveable relative to the reverse stop device stop by changing of the angle between the separate arms of the stop device.

24. The actuator as defined in claim 21 in which the stop device is pivotally mounted.

25. The actuator as defined in claim 21 in which the stop device is mounted on a chassis of the actuator.

26. The actuator as defined in claim 21 in which the gear wheel is rotatable through at least 360°.